



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q77482

GROSS, Abraham, et al.

Appln. No.: 10/660,730

Group Art Unit: 1722

Confirmation No.: 4923

Examiner: unknown

Filed: September 12, 2003

For: MULTIPLE BEAM MICRO-MACHINING SYSTEM AND METHOD

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. §§ 1.97 and 1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents, other than any U.S. patents and patent publications, is submitted herewith.

The present Information Disclosure Statement is being filed: (1) No later than three months from the application's filing date; (2) Before the mailing date of the first Office Action on the merits (whichever is later); or (3) Before the mailing date of the first Office Action after filing a request for continued examination (RCE) under §1.114, and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

INFORMATION DISCLOSURE STATEMENT  
U.S. Appln. No.: 10/660,730

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

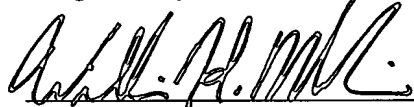
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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Respectfully submitted,



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Registration No. 32,156

Date: December 23, 2003

Substitute for Form 1449 A &amp; B/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

DEC 23 2003

## Complete if Known

Application Number	10/660,730
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## U.S. PATENT DOCUMENTS

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		Number	Kind Code <sup>2</sup> (if known)		
		US 6,252,667		Jun 26, 2001	Hill et al.
		US 6,295,171		Sep 25, 2001	Chao et al.
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		US 6,037,564		Mar 14, 2000	Tatah
		US 60/387,911		Jun, 2002	Gross et al.
		US 4,447,291		May 8, 1984	Schulte

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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
		WO	0064623		Nov, 2000	GSI Lumonics Inc.	
		EP	1224999		Apr, 2001	Sumitomo Heavy Industries	
		WO	03071344		Aug 28, 2003	Orbotech Ltd.	

## OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation <sup>6</sup>
		Mignardi et al. "The Digital Micromirror Device – a Micro-Optical Electromechanical Device for Display Applications", MEMS and MOEMS Technology and Applications, SPIE Press, 2000	
		Owen, Mark, New Technology for Drilling Through -and Blind-Vias in Copper Clad Reinforced Circuit Boards, IPC Proceedings, May 1995.	
		Lee, Rex A. and Moreno, W.A., Excimer vs. ND:YAG Laser Creation of Silicon Vias for 3D Interconnects, IEEE, 1992, pp. 358-360.	

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		Liu, Y.S., Cole, H.S., and Guida, R., "Laser ablation of polymers for high-density interconnect," Microelectronic Engineering 20 (1993) 15-29, 1993 Elsevier Science Publishers B.V., pp. 15-29.	

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		Mahan, G.D., et al. "Theory of polymer ablation," Appl. Phys. Lett. 53 (24), 12 Dec. 1988, pp. 2377-2379.	
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		ESI "Model 4570 Series Lasers Service Guide", Feb, 1994,	

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